

surface of the main body, the spacer element being adapted for maintaining the main body above the first surface of the microelectronic element and remote from the pads of the microelectronic element. The main body and the spacer element have a combined thickness that is substantially equivalent to the diameter of the conductive elements.

IN THE CLAIMS:

1. (Amended) A stencil assembly for placing conductive elements over conductive pads provided at a first surface of a microelectronic element, said stencil assembly comprising:

a main body having a top surface and a bottom surface and a plurality of openings extending between the top and bottom surfaces, said main body being adapted for overlying the first surface of said microelectronic element so that said openings are in substantial alignment with the pads accessible thereat; and

a spacer element under the bottom surface of said main body, said spacer element being adapted for maintaining said main body above the first surface of said microelectronic element and remote from said pads, wherein said conductive elements have a diameter and said main body and said spacer element have a combined thickness that is substantially equivalent to the diameter of said conductive elements.

7. (Amended) The stencil assembly as claimed in claim 1, wherein the top surface of said main body and the first surface of said microelectronic element define a distance that is approximately equal to the diameter of said conductive elements, so that said conductive elements do not substantially protrude over the top surface of said main body when said conductive elements are over said pads.

10. (Amended) The stencil assembly as claimed in claim 1, further comprising a reservoir disposed over the top surface of said main body, said reservoir being adapted to retain said conductive elements remaining over the top surface of said main body after one or more of said conductive elements have been deposited in the plurality of openings extending between the top and bottom surfaces of said main body.

14. (Amended) An assembly comprising:

a microelectronic element having a first surface and one or more terminals accessible at said first surface;

a spacer plate having a top surface, a bottom surface and at least one opening extended therethrough secured over the first surface of said microelectronic element, wherein said at least one opening of said spacer plate is in substantial alignment with said terminals;

a stencil having a top surface and a bottom surface and a plurality of openings extending therethrough secured over said spacer plate so that the plurality of openings in said stencil are in substantial alignment with said terminals, wherein said spacer plate holds said stencil remote from said terminals, and wherein conductive elements are deposited through the openings in said stencil so that each said deposited conductive element is affixed atop one of said terminals, the top surface of said conductive element stencil and the first surface of said microelectronic element defining a distance that is approximately equal to the diameter of said conductive elements.

16. (Amended) The assembly as claimed in claim 14, wherein said spacer plate includes a substantially flat plate

that is disposed between the first surface of said microelectronic element and the bottom surface of said stencil.

17. (Amended) The assembly as claimed in claim 14, wherein said stencil has a thickness of approximately 160-200 microns.

18. (Amended) An assembly comprising:

a microelectronic element having a first surface and one or more terminals on said first surface, wherein a mass of flux material is deposited over each said terminal;

a spacer plate having a top surface, a bottom surface and at least one opening extending therethrough over the first surface of said microelectronic element so that said at least one opening is in substantial alignment with said terminals;

a stencil including a substantially flat plate having a top surface and a bottom surface and a plurality of openings extending between the top and bottom surfaces, said stencil being secured over said spacer plate so that the plurality of said openings in said stencil are in substantial alignment with said masses of flux material;

a conductive element being deposited in each said opening in said stencil, wherein each said deposited conductive element is positioned atop one of said masses of flux material; and

a reservoir disposed over the top surface of said stencil, said reservoir being adapted to retain said conductive elements remaining over the top surface of said stencil after one or more of said conductive elements have been deposited in said openings of said stencil.

Cancel claim 15.